

Head, Interplanetary Physics Branch
 Laboratory for Extraterrestrial Physics
 NASA Goddard Space Flight Center
 Mail Code 692, Bldg.2, Rm. 138
 Greenbelt, MD 20771
 Fax: 707-988-7835

D.O.B.: 23 November 1948
 Married to Gwen M. Moore
 Children, Whitney L., Jessica A., Amy N.
 P: 301 286 5236, R: 410 721 8557, M: 410-507-0869
 E-mail: thomas.e.moore@gsfc.nasa.gov,
 tomem@earthlink.net

Formal Education:

Astrogeophysics, plasma astrophysics
 Teaching Education
 Physics, minors: E.E., Mathematics

degree

Ph.D.
 M.A.T.
 B.S.

date

1978
 1971
 1970

institution

Univ. of Colorado
 Univ. of N.H.
 Univ. of N.H.

Employment:

1997-present supv. research scientist
 1986-1998 instructor/graduate faculty
 1984-1997 supv. research scientist
 1983-1984 research scientist
 1981-1983 research scientist II
 1981-1983 instructor
 1979-1981 research scientist I

Employer:

NASA Goddard Space Flight Center, Greenbelt, MD
 Dept. of Physics, Univ. of Ala. in Huntsville, AL
 NASA/Marshall Space Flight Center, Huntsville, AL
 NASA/Marshall Space Flight Center, Huntsville, AL
 Space Science Center, University of N.H., Durham, NH
 Dept. of Physics, University of N.H., Durham, NH
 Space Science Center, University of N.H., Durham, NH

Research Project Roles:

1997-present Lead Coinvestigator: Low Energy Neutral Atom Imager, IMAGE mission (NASA).
 1989-present Principal Investigator: Thermal Ion Dynamics Experiment on the International Solar Terrestrial Physics program POLAR spacecraft (NASA).
 1993-present Principal Investigator: Energization of Terrestrial Plasma: 3D kinetic investigation plasma transport and energization within the magnetosphere (NASA).
 1991-present Co-Investigator: Sounding of the Cleft Ion Fountain Energization Region (SCIFER): ion mass spectrometry for a dayside cusp sounding rocket payload (NASA).
 1990-1993 Principal Investigator: Magnetospheric Role of Ionospheric Plasma: modeling and data comparisons (NASA).
 1986-1992 Principal Investigator: Cometary Retarding Ion Mass Spectrometer for the Comet Rendezvous Asteroid Flyby Mission (NASA).
 1988-1993 Team Leader: Dynamics Explorer/Retarding Ion Mass Spectrometer Science Team. Transport and distribution of ionospheric plasma in Earth's magnetosphere (NASA).
 1987-1988 Mission Scientist: SpaceLab/Space Plasma Laboratory
 1983-1991 Principal Investigator: Ionospheric Mass Spectrometry: NASA Research and Technology Objective Plan supporting development of innovative instrumentation and test flight on sounding rocket payloads such as the TOPAZ series (NASA).
 1982-1983 Principal Investigator: Topside Probe of the Auroral Zone (TOPAZ), a high altitude rocket program to investigate the response of the topside ionosphere to auroral processes (NASA).
 1980-1982 Principal Investigator: Analysis of University of NH ATS-6 plasma data: Multiple spacecraft studies. Correlation of data sets from several spacecraft in the time frame from 1977-82, e.g. SCATHA, GEOS, GOES (NASA).
 1981-1984 Co-Investigator: Argon Release Controlled Studies (ARCS): sounding rocket program to study wave-particle energy coupling by means of ion beam perturbations of the auroral ionosphere (NASA).
 1979-1983 Co-Investigator: Geosynchronous Orbit Correlative Studies: Correlative analysis of data from ATS-6 and other spacecraft with ground-based data sets (NSF).

Management Experience

- Branch Head: Manage secretary, up to 15 Ph.D. and M.S. research scientists, computer scientists, computer system manager, and support team of 3 engineers, 3 technicians, and a machinist. Facilities managed included a departmental computer, a network of 6 Unix workstations, 18 MacOS and 6 DOS desktop computers, mission operations facility, class 10000 clean room, technician work areas including a small machine shop, and two ultra-clean high vacuum facilities including particle beam sources and extensive data acquisition and control facilities.
- Advising: Serve as research adviser to numerous senior and postdoctoral NRC resident research associates, and graduate students.
- Contracting: Purchase R&D services through contract, grant, and cooperative agreement instruments, as appropriate. Annual funding levels range up to 3M\$.

Professional Service:

- Project Study Sci.: NASA Magnetospheric Constellation Mission.
- Co-Chair NSF GEM Working Group on Ionospheric Plasma in the Magnetosphere.
- Member NASA Living With a Star Program GSFC Steering Committee, 2000-present.
- Member NASA Sun-Earth Connection Roadmap Committee, 1999.
- Co-Chair: Working group on high latitude plasma source processes, Int'l Space Science Institute project on sources and losses of magnetospheric plasma, 1996-1998.
- Project Scientist: IMAGE Mission, a NASA Mid-Explorer mission, 1997-present.
- Secretary: for Magnetospheric Physics, Space Physics and Aeronomy Section of the American Geophysical Union, 1996-1998.
- Member: Solar Probe Science Definition Team, 1996-1999.
- Co-convener: Huntsville '96 Workshop: "Encounter between global observations and models in the ISTEP era, Sept. 1996.
- Member: Space Physics Subcommittee of the NASA Space Science Advisory Committee.
- Associate Editor: Journal of Geophysical Research, Space Physics, 1993-1994.
- Consultant: SciTech Journal, of the Macintosh Scientific and Technical Users Group, in the area of scientific data acquisition, analysis and visualization, 1992-1998.
- Reporter Reviewer: International Association of Geomagnetism and Aeronomy, 7th and 8th scientific assemblies, 1993-1995.
- Co-Convener: Third Huntsville Workshop on Magnetospheric Plasma Models: "Sources, Transport, Energization, and Loss of Magnetospheric Plasmas", Oct. 1992.
- Reporter: NASA Select "Today In Space" reporter on the Space Plasma Physics investigations aboard the ATLAS-1 mission: SEPAC, AEPI, ENAP, March 1992.
- Member: NASA Science Study Panel, Inner Magnetosphere Imager mission, 1991-1994.
- Invited Reviewer: U.S. National Report to the Int'l Union of Geodesy and Geophysics, 1987-1990.
- Member: NASA/OSSA/Space Physics Division Strategy Implementation Study, Panel on Magnetospheric Physics, 1990.
- Member: AGU Awards Committee, 1990-92.
- Member: NRC/SSB Comm. on Solar and Space Physics, 1986-89.
- Co-Convener: Workshop on Experiments with Magnets in Space, Sept. 1987.
- Member: NASA Magnetosphere and Ionosphere Management and Operations Working Group (MOWG), 1987-90.
- Co-Editor: "Modelling Magnetospheric Plasmas", Geophysical Monograph No. 44, American Geophysical Union, Washington, DC, 1988.
- Co-Convener: Huntsville Workshop, Magnetosphere/Ionosphere Plasma Models, Oct. 1986.
- Member: NASA solar terrestrial workshop, subgroup on magnetospheric substorms, 1983.